State of Hawaii DEPARTMENT OF LAND AND NATURAL RESOURCES Division of Aquatic Resources Honolulu, Hawaii 96813

March 24, 2017

Board of Land and Natural Resources Honolulu, Hawaii

SUBJECT: Request for Approval to Add Funding (\$689,000 Federal) and Extend through FY18 the Project Agreement (Contract No. 60395, Amendment No. 6) between the Board of Land and Natural Resources (BLNR) and The Research Corporation of the University of Hawaii (RCUH) for the Division of Aquatic Resources (DAR) Research Project Titled "Investigation of Estuarine Habitats."

Submitted herewith for your consideration is a request to amend and extend an existing Project Agreement (Contract No. 60395) between the BLNR and RCUH. Amendment No. 6 to the Project Agreement will add \$689,000 in Federal funds and allow continuation of the project from July 1, 2017 through June 30, 2018. Federal funds are from U.S. Fish and Wildlife Service Sport Fish Restoration grants. The State match component is comprised of funds from DAR in-kind match, and community-based volunteer services as available. The BLNR/RCUH Project Agreement allows DAR to secure assistance from RCUH in order to perform project objectives. RCUH's assistance is required in order for DAR to meet project goals and objectives in a timely way.

There is a need for DAR to manage and conserve sport fish populations by improving management of juvenile fish habitats within Hawaiian estuaries, as well as meet the expectations of the islands' fishing community now and in the future. Estuaries play critical roles in the management and conservation of many sport fishes because these ecosystems function as nursery habitats. The presence of large populations of juvenile fishes in estuaries is driven by two key factors: (1) estuaries are highly productive ecosystems that provide various and abundant food sources needed for rapid growth and; (2) estuaries are comprised of a diversity of habitat types that provide refuges from predators thus improving survival of species to adult.

Despite the view that estuaries function as fish nursery habitats, very little is understood about the role and dynamics of this habitat to coastal fish production in Hawaii. This project continues to examine the role of estuaries (muliwai) in providing functional nursery habitat for coastal fish species. A resultant comprehensive 5-year study of juvenile fish habitats in a broad range of estuary types throughout the Hawaiian Islands will be produced with the goal to inform and improve Hawaii's management of this ecosystem and its resources. Findings will characterize the seasonality, species, and size composition of both native and introduced fish species in Hawaii's estuaries.

Key project objectives in FY18 include the following: a) monitor and identify trends in juvenile fish recruitment, population dynamics and growth in estuaries throughout the Hawaii Islands by 1) sampling fish quarterly; 2) measuring underlying factors (i.e. freshwater inflow, invasive species) that may explain these trends; and 3) analyzing data for comparison among years; b) measure and compare habitat quality of estuaries as juvenile habitat using 1) age and growth of population dynamics by applying methods such as length-frequency analysis and otoliths (ear bones) to read daily growth marks (species approach); 2) rapid site assessments of estuaries throughout the islands (spatial approach); and 3) analyzing data for comparison among species, sites and estuary types, as appropriate; and c) monitor how juvenile fishes respond to restored or reconstructed estuarine marshes as invasive species (mangroves and grasses) are replaced with native plants, such as sedges, by 1) sampling fish quarterly; 2) measuring changes in aquatic plant cover and water quality quarterly; and 3) analyzing data for comparison with unaltered sites (controls). In addition, the project includes updating the inventory of Hawaii's estuaries using a contemporary classification scheme; expanding the DAR database, including making improvements to procedures for data entry and for accessibility of archived data; providing GIS support; grant coordination/administration and budgetary oversight.

Approval to amend and extend the Project Agreement is being requested concurrently from the Governor, through the Department of Budget and Finance. Also, Amendment No. 6 to the Project Agreement is being prepared for submission to the Attorney General's Office for preliminary approval as to form. DAR is aware implementation of Amendment No. 6 is dependent upon receipt of all required approvals as well as the availability of funds, and that funding restrictions may occur at any time.

Chapter 343 - Compliance with Environmental Law:

Contract No. 60395 involves the use of state lands (submerged lands zoned in the Conservation District, Resource subzone) and use of state funds. The Department has determined that the actions undertaken by this ongoing project will have little or no significant effect on the environment and are exempt from the preparation of an environmental assessment. See Agency's Determination of Exemption (attached) from preparation of an environmental assessment.

RECOMMENDATION:

Based on the attached proposed declaration of exemption prepared by the department after consultation with and advice of those having jurisdiction and expertise for the proposed actions under the contract:

- 1. That the Board declare that the actions which are anticipated to be undertaken under this contract will have little or no significant effect on the environment and is therefore exempt from the preparation of an environmental assessment.
- 2. Upon the finding and adoption of the department's analysis by the Board, that the Board delegate and authorize the Chairperson to sign the declaration of exemption for purposes of recordkeeping requirements of Chapter 343, HRS, and Chapter 11-200, HAR.

3. That the Board authorizes the Chairperson to negotiate and, subject to necessary approvals, amend and extend a Project Agreement (Contract No. 60395, Amendment No. 6) with the Research Corporation of the University of Hawaii a Division of Aquatic Resources research project titled "Investigation of Estuarine Habitats."

Respectfully submitted,

BRUCE S. ANDERSON, Ph.D.

Administrator

APPROVED FOR SUBMITTAL:

SUZANNE D. CASE

Chairperson

Attachment

DAVID V. IGE GOVERNOR OF HAWAII





STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES

POST OFFICE BOX 621 HONOLULU, HAWAII 96809

SUZANNE D. CASE CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

KEKOA KALUHIWA FIRST DEPUTY

JEFFREY T. PEARSON P.E. DEPUTY DIRECTOR - WATER

AOUATIC RESOURCES BOATING AND OCEAN RECREATION
BUREAU OF CONVEYANCES
COMMISSION ON WATER RESOURCE MANAGEMENT
CONSERVATION AND COASTAL LANDS
CONSERVATION AND RESOURCES ENFORCEMENT ENGINEERING
FORESTRY AND WILDLIFE
HISTORIC PRESERVATION
KAHOOLAWE ISLAND RESERVE COMMISSION LAND STATE PARKS

March 24, 2017

TO:

Division of Aquatic Resources File

THROUGH: Suzanne D. Case, Chairperson

FROM:

Bruce S. Anderson, Ph.D., Administrator Sun Anderson

Division of Aquatic Resources

SUBJECT: Declaration of Exemption from the Preparation of an Environmental Assessment under the Authority of Chapter 343, HRS, and Chapter 11-200, HAR, for a Request for Approval to Add Funding (\$689,000 Federal) and Extend through FY18 the Project Agreement (Contract No. 60395, Amendment No. 6) between the Board of Land and Natural Resources (BLNR) and The Research Corporation of the University of Hawaii

(RCUH) for the Division of Aquatic Resources (DAR) Research Project Titled

"Investigation of Estuarine Habitats."

The following contract activities are found to be exempted from preparation of an environmental assessment under the authority of Chapter 343, Hawaii Revised Statutes (HRS) and Chapter 11-200, Hawaii Administrative Rules (HAR):

Project Title: Investigation of Estuarine Habitats

Request for Approval to Add Funding (\$689,000 Federal) and Extend through FY18 the Project Agreement (Contract No. 60395, Amendment No. 6) between the Board of Land and Natural Resources (BLNR) and The Research Corporation of the University of Hawaii (RCUH) for the Division of Aquatic Resources (DAR) Research Project Titled "Investigation of Estuarine Habitats."

Project Description: This project continues to examine the role of estuaries (muliwai) in providing functional nursery habitat for coastal fish species. A resultant comprehensive 5-year study of juvenile fish habitats in a broad range of estuary types throughout the Hawaiian Islands will be produced with the goal to inform and improve Hawaii's management of this ecosystem and its resources. Findings will characterize the seasonality, species, and size composition of both native and introduced fish species in Hawaii's estuaries.

DLNR/RCUH Contract No. 60395 (Amendment No. 6) March 24, 2017 Page 2

Key project objectives in FY18 include the following: a) monitor and identify trends in juvenile fish recruitment, population dynamics and growth in estuaries throughout the Hawaii Islands by 1) sampling fish quarterly; 2) measuring underlying factors (i.e. freshwater inflow, invasive species) that may explain these trends; and 3) analyzing data for comparison among years; b) measure and compare habitat quality of estuaries as juvenile habitat using 1) age and growth of population dynamics by applying methods such as length-frequency analysis and otoliths (ear bones) to read daily growth marks (species approach); 2) rapid site assessments of estuaries throughout the islands (spatial approach); and 3) analyzing data for comparison among species, sites and estuary types, as appropriate; and c) monitor how juvenile fishes respond to restored or reconstructed estuarine marshes as invasive species (mangroves and grasses) are replaced with native plants, such as sedges, by 1) sampling fish quarterly; 2) measuring changes in aquatic plant cover and water quality quarterly; and 3) analyzing data for comparison with unaltered sites (controls). In addition, the project includes updating the inventory of Hawaii's estuaries using a contemporary classification scheme; expanding the DAR database, including making improvements to procedures for data entry and for accessibility of archived data; providing GIS support; grant coordination/administration and budgetary oversight.

Consulted parties: Fish & Wildlife Service, Sportfish Restoration Program

Exemption Determination: After reviewing §11-200-8, HAR, including the criteria used to determine significance under §§11-200-1 and 5, HAR, DLNR has concluded that the activities under this contract would have no significant effect on the environment and that approval of the contract extension is categorically exempt from the requirement to prepare an environmental assessment based on the following analysis:

- 1. All activities associated with this contract have been evaluated as a single action. Since this research contract involves activities that are precedent to a later planned activity, i.e., the monitoring and collection of data and research, the categorical exemption determination here will treat all planned activities as a single action under § 11-200-8, HAR.
- 2. The Exemption Class #5 or Scientific Research with no Serious or Major Environmental Disturbance Appears to Apply. §11-200-8(a)(5), HAR, exempts the class of actions that involve "basic data collection, research, experimental management, and resource evaluation activities which do not result in a serious or major disturbance to an environmental resource." This exemption class has been interpreted to include the data collection, research and resource evaluation activities related to estuarine habitats, such as those being proposed.

The proposed activities here appear to fall squarely under the exemption class identified under §11-200-8(a)(5), HAR, and as described under the 2015 DLNR exemption list class #5, item #2, #14 and #15. As discussed below, no significant disturbance to any environmental resource is anticipated. Thus, so long as the below considerations are met, an exemption class should include the action now contemplated.

3. <u>Cumulative Impacts of Actions in the Same Place and Impacts with Respect to the Potentially Particularly Sensitive Environment Will Not Be Significant</u>. Even where a categorical

DLNR/RCUH Contract No. 60395 (Amendment No. 6) March 24, 2017 Page 3

exemption appears to include a proposed action, the action cannot be declared exempt if "the cumulative impact of planned successive actions in the same place, over time, is significant, or when an action that is normally insignificant in its impact on the environment may be significant in a particularly sensitive environment." §11-200-8(b), HAR. To gauge whether a significant impact or effect is probable, an exempting agency must consider every phase of a proposed action, any expected primary and secondary consequences, the long-term and short-term effects of the action, the overall and cumulative effect of the action, and the sum effects of an action on the quality of the environment. §11-200-12, HAR.

Significant cumulative impacts are not anticipated as a result of this activity, and numerous safeguards further ensure that the potentially sensitive environment of the project area will not be significantly affected. All activities will be conducted in a manner that does not diminish marine resources, qualities, and ecological integrity, or have any indirect, secondary, cultural, or cumulative effects.

Since no significant cumulative impacts or significant impacts with respect to any particularly sensitive aspect of the project area are anticipated, the categorical exemptions identified above should remain applicable.

4. Overall Impacts will Probably have No Significant Effect on the Environment. Any foreseeable impacts from the proposed activity will be further mitigated by general and specific conditions attached to the contract. Specifically, all research activities covered by this contract will be carried out with strict safeguards for the natural, historic, and cultural resources, other applicable law and agency policies and standard operating procedures.

<u>Conclusion</u>: Upon consideration of the contract to be approved by the Chairperson, being delegated signatory authority on behalf of the Board of Land and Natural Resources at its meeting of March 24, 2017, the potential effects of the above listed project as provided by Chapter 343, HRS, and Chapter 11-200, HAR, have been determined to be of no significant effect on the environment and exempt from the preparation of an environmental assessment.

Suzanne D. Case, Chairperson

Board of Land and Natural Resources